INFORMATION REPORT INFORMATION REPORT

CENTRAL INTELLIGENCE AGENCY

C-O-N-F-I-D-E-N-T-I-A-L

50X1-HUM

COUNTRY USSR (Moscow Oblast)

REPORT

SUBJECT Airframe Plant No. 30, Moscow

DATE DISTR. 27 JUL 1959

NO. PAGES 1

REFERENCES

50X1-HUM

DATE OF INFO.

PLACE & DATE ACQ.

50X1-HUM

SOURCE EVALUATIONS ARE DEFINITIVE. APPRAISAL OF CONTENT IS TENTATIVE.

report on Airframe Plant No. 30, Moscow

Prior to 1949, Plant No. 30 manufactured IL-12 aircraft; in 1949 or later the plant began to produce an Ilyushin light bomber with twin-jet engines. The plant manufactured most of the component parts of this aircraft, and assembled them. The report on Airframe Plant No. 30 lists the other products of the plant, the raw materials it used and their sources, and some personalities connected with the plant. The report also describes working conditions in the plant, and includes four sketches of 50X1-HUM plant location and equipment, and one oversize plant layout diagram, with legends for same.

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INFORMATION REPORT INFORMATION REPORT

AIRFRAME ASSEMBLY PLANT NO. 30

Identification

1. aircraft assembly plant known as Aviatsionnyy Zavod #30, (Aircraft Factory No. 30) The plant was 50X1-HUM subordinate to the Ministry of Air Industry which was merged with the Ministry of Armament Industry in the 1950's. The plant area, about one kilometer by 700 meters, was located southwest of Leningradskoye shosse and northwest of Botkinskiy pereulok, adjoining the Central Airfield in the northwest. The factory was built in 1930 and formerly had the designation of Plant No. 1. In 1950 it was merged with another smaller aircraft assembly factory, and at that time the designation was changed to Plant No. 30. the numbers of the individual shops were changed several times, once while merging with the other factory and on several other occasions. shops nos. 9 50X1-HUM and 10, were later renumbered nos. 53 and 54 respectively. In 1951 or 1952 there were rumors that the entire plant would be moved near Kuybyshev in Siberia, but nothing happened to substantiate these rumors. There were also rumors that in 1956 the plant might change to the production of a four-jet engine bomber the plant machinery was inadequate for the production of four-engine bombers. Other rumors were that Plant No. 30 might be used to produce only experimental prototypes of aircraft. 50X1-HUM

Plant Products

2. during W.W.II. Plant No. 30 produced military aircraft. 50X1-HUM it was the IL-10 bomber. In 1945 Plant No. 30 manufactured the IL-12, a passenger aircraft modeled on the US-made Douglas aircraft. 50X1-HUM

3. At some stage Plant No. 30 discontinued making the IL-12 passenger aircraft and began to produce a light bomber with twin-jet engines. This aircraft was also one of the 50X1-HUM Ilyushin series picture of the light bomber described as follows: a twin-jet engine light bomber, with a plexiglass nose and plexiglass top over the pilot's cabin. There were seats for a pilot and a 50X1-HUM navigator (Sturman) in the pilot's cabin. There were ejection seats by means of which the pilot and navigator could be ejected from the plane. these ejection seats being tested in the tower shown as point 89, Plant Layout. The ejection seats were put in a mock cabin and ejected from the cabin. They were expelled to heights of five to fifteen meters above the tower. No dummies were placed in the seats lead weights were used to approximate the weights of the men. The 50X1-HUM

wings were high mid-wings, swept back at about a 30 degree angle, and tanks were installed at the wing tips. 50X1-HUM their dimensions were three meters in length, about 80 centimeters in width, and 40 centimeters in diameter. The engines were of either KLIMOV or NOVIKOV design, and were about three meters in length and 1.20 meters in width. The bomb-bay was located in the center of the under side of the fuselage. this airplane being 50X1-HUM loaded with mock bombs. The tail section was swept back at about a 30 degree angle and a position was installed for the tail gunner. On the under side of the plane near the tail turret there was an exit door for the tail gunner. The aircraft had a tricycle landing gear with a tail wheel. The nose landing wheel could be folded to the rear against the body of the plane. The two main landing wheels folded against the wings and the tail wheel was fixed. the bomb-bay doors and the exit door for the tail gunner opened by means of hydraulic pressure. There were two guns installed on each wing between the engine and the fuselage, two guns in the nose 50X1-HUM section and two guns in the tail section, (type and caliber unknown).

the plane had some optical sights and probably some photographic equipment 50X1-HUM

the gasoline tanks in the wings took exactly seven tons of kerosene

4. This plane came in two types: one with a plexiglass nose and one with an aluminum nose. One of these two types was a 50X1-HUM trainer version. this plane flown over Moscow in the 50X1-HUM parades held on 1 May and 7 November, in the years 1950 through 1955

this aircraft as the IL-28 (Beagle), but the wings were different, swept back and similar to the YAK-25 (Flashlight A) 50X1-HUM

5. The manufacture of the various component parts of the fuselage, wings, tail ailerons, fuel tanks, and the assembly of these parts, the cabin, instruments, guns and radio parts, were accomplished at Plant No. 30. In addition to the above production, Plant No. 30 manufactured some of the equipment required for aircraft assembly such as: jigs for assembly of 50X1-HUM wings, fuselage, empennage and cabins, and various tools.

very similar to the jigs made at Plant No. 30. The sizes of jigs were for fuselages (two or three sections), 15 meters long, five meters wide; for wings - one section, 10 meters long, five meters wide; second section, five meters long, five meters wide; for empennages, five meters by five meters; and for cabins, four meters by three meters. Some jig parts were joined by welding, some with bolts. Old jigs were cut up into scrap and new jigs were constantly being made. The jigs were steel and iron, 50X1-HUM

6. Other items manufactured at Plant No. 30 were:

   a. Forges, dies, bore diameters, micrometers, wrenches, rulers, bits, twist drills, drills, nuts, bolts, screw-cutting dies and tool kits to be placed in each aircraft.

   b. Dermantin (artificial leather) covers for engines and pilot's cabins.

7-/. Plant No. 30 also manufactured the following consumer goods from scrap and waste metal:

   a. Metal milk cans, about 70 centimeters in height, 40 centimeters in diameter;

   b. Kerosene stoves of aluminum, 25 centimeters in height, 20 centimeters in diameter;

   c. Steel ploughs (manufacture of the ploughs was started in 1954);

   d. Up until 1952 Plant No. 30 made white metal refrigerators, about one and one-half meters high, 70 centimeters in width and 70 centimeters in length. 50X1-HUM after 1952 production had stopped.

   e. Folding beds, about two meters long, 70 centimeters wide and one-half meter in height, which sold for 140 rubles. Children's beds, some of which were painted in a silver color, sold for 220 rubles, and other children's beds painted yellow and white sold for 190 rubles. The beds were made from iron, aluminum, or Duralumin.

   f. Ladles, spoons and forks - which sold for four rubles each.

   g. Stands for display of flags.

   h. Steel girders. In 1955 Plant No. 30 began making steel girders and beams for construction of seven to ten-story apartment houses. These beams were 15 meters long, up to two meters in width and one-half meter in height. The plant also produced various other steel parts used in building construction such as window frames, door parts, etc.

   i. Children's toys, such as sleds, toy sleds, toy horses.

   j. Plant No. 30 repaired and tested scales, ranging from five kilos to 350 kilos capacity, for an unknown plant. 50X1-HUM

7. IL-12 airplanes were repaired in a separate shop area (see point 35, Plant Layout). there were always several IL-12 aircraft parked out in the open and repair work being done such as the replacement of aluminum sheets and work on the engines. Some of these IL-12 planes had German, Polish and Czech markings.

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Attachment

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8. a prototype of a four-engine bomber in a shop in Plant No. 30 (see point 78, Plant Layout). The shop was off limits but the upper part of the aircraft could be seen through the glass walls of the shop. Plant No. 30 did not produce any passenger planes after 1950 however it was possible that Plant No. 30 made wings and fuselages of the IL-12 and shipped them to other unknown plants for assembly. wings and fuselages being crated and loaded on railroad cars for shipment either to the Kuybyshev and/or to the Tashkent Ilyushin Assembly Plants, however he was not certain of the destination of these aircraft sections. 50X1-HUM

Distribution of Production

9. The assembled aircraft were taxied out to the Central Airfield, where they were taken over by Soviet Air Force officers and test flown to Ramenak Airfield. 50X1-HUM
In addition to fuselages and wings, Plant No. 30 shipped jigs for the assembly of fuselages, cabins, tails and wings to other plants. these jigs were sent to Kuybyshev, because mechanics of Plant No. 30 went there to install the jigs (see Personnel, paragraph 40 below).

10. The beds, ploughs, stoves, milk cans, refrigerators, toys, forks and spoons were all marked (stamped, stenciled or die-hammered)'Shirpotreb Zavod 30'(Tovary Shirokovo Potrebleniya - Zavod 30 - Consumer Goods, Plant No. 30). The folding beds were distributed not only all over the USSR but were also shipped to Poland and China. shipping labels, 50X1-HUM printed by Plant No. 30 printing shop (shown as point 21, Plant Layout) in the Polish and Chinese languages. These labels were pasted on cardboard boxes containing the folding beds. The boxes were loaded on railroad cars for shipment.

11. The manufacture of by-products represented only a small percentage of the total plant output. The main production of the plant other than the assembly of aircraft, were jigs, and the component aircraft parts. 50X1-HUM

Raw Materials

50X1-HUM

12. a delivery truck, for distribution of such 50X1-HUM
by-products as toys, milk cans, kerosene stoves, refrigerators, and spoons and forks to various stores in the city and oblast of Moscow, and for the delivery of steel girders to construction areas in Moscow truck frequently was dispatched to pick up engines and raw materials hauled the following items to Plant No. 30:

a. Aircraft jet engines, from Factory No. 45 50X1-HUM
These engines, believed to be of either KLIMOV and/or NOVIKOV design came packed in dark blue wooden boxes, two and one-half by two by two meters in dimension which weighed about one to one and one-half ton. Two such boxes were crane-loaded onto a three-ton truck. Frequently these engines were brought to Plant No. 30 at night. 50X1-HUM

50X1-HUM

many drivers were employed for various runs.

b. Pigiron, in billets 30 centimeters in height, 25 centimeters in length, 10-15 centimeters in width, were brought from Serp I Moloto (Hammer and Sickle) Factory in Moscow. 50X1-HUM

50X1-HUM

c. Paints, acids, chemicals and glues came from an unknown Yaroslavl factory. loads of paint at the Yaroslavskiy railroad station in Moscow. These materials also were brought from an unknown plant in Ramenak Airfield.

The Dorogomilovskiy Chemical Plant in Moscow was another supply point for these materials. 50X1-HUM

d. Wooden boxes with aircraft instruments (type unknown) were procured at the entrance of the Tushino Airfield.

e. Photographic equipment for aircraft from the Optical Plant in Krasnogorsk. An electro-car 50X1-HUM brought instruments in wooden boxes 30 x 30 x 20 centimeters in dimension which were loaded onto the Plant No. 30 truck at the Optical Plant gate.

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f. Electrodes used in welding processes were procured from the Wagon Construction Plant in either Moscow-Lyuberts or Moscow/Lyublin

g. Duraluminum sheets three meters long, two meters wide, two to five millimeters thick, packed in wooden boxes, three to four meters long, two meters wide, 30 centimeters in height, were brought to Plant No. 30 from Stupino. 50X1-HUM

h. Dermantin (an artificial leather used as a protective cover for aircraft engines and cabins), and pink colored packing cotton used as packing cover for engines was brought from textile mills in Serpukhov (N54-54, E 37-24). Dermantin from textile mills in Orekhovo-Zuyevo (N 55-49, E 38-59) and Shchelkovo (N 55-55, E 38-00).

i. Pigiron in round form in various sizes was shipped by barges to the Khimki river station on the Moskva river.

j. Canvas for folding beds was supplied by a textile mill in Shchelkovo.

k. Ice, in blocks of 20-40 kilos, was hauled from the Mikoyan Refrigerator Plant on Khoroshevskoye shosse, Moscow, to a laboratory in Plant No. 30.

l. Pipes (tubes) for beds and aluminum for toys came from Fili.

m. Wooden boxes of various sizes, believed to contain aircraft instruments, were picked up at the Kazanskiy and Oktyabrskiy railroad stations in Moscow.

n. Radar equipment was procured from a radar factory (Zavod Radiolokatsiy) on Mozhayskoye shosse, Moscow. He was not permitted to enter this factory, and could only drive up to the gate where a driver from the radar factory took over the truck and drove it into the factory area. The truck was returned loaded with cubical wooden boxes measuring about 50 centimeters on a side.

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13. Other raw materials (origin unknown) seen at Plant No. 30 were:

a. Armament, which came from Plant No. 43, Moscow. Normally, only certain Soviet drivers were sent to Plant No. 43 to pick up armament.

b. Radio equipment for aircraft - normally, only certain Soviet drivers were sent out to pick up these items.

c. Iron, shipped in by railroad.

d. Duraluminum and aluminum sheets brought in by rail.

e. Mazut fuel shipped in by railroad.

f. Coal brought to the plant in freight cars.

g. Liquid oxygen brought in by special trucks (see sketch page 37) point of origin unknown, but believed to be Ramenak Airfield. The liquid oxygen was brought in daily(use unknown).

h. Kerosene jet fuel hauled by ten fuel trucks belonging to Plant No. 30. The point of origin was unknown, but was believed to be Ramenak Airfield.

i. Steel armour plates which were placed at the back of the pilot's seat.

j. Plexiglass. 50X1-HUM

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k. Elektron, shipped in by railroad. described as a metal similar to aluminum but highly inflammable.

l. Cement and sand.

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m. Oil and benzine.

Utilities

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14. All shops were supplied with water by underground pipe lines which connected with the Moscow water system.

15. The origin of electric power was unknown, [redacted] assumed it to be the GES (Gidro Elektricheskaya Stantsiya - Hydro-electric Power Station) network. The current supplied to the factory was 220 volts. The plant had a transformer station shown as point 66, Plant Layout. [redacted] The supply of electricity was adequate at all times. The infrequent electricity failures were repaired within an hour or so.

Transportation

16. Two railroad sidings entered Plant No. 30 from the west, shown as points 13 and 26, Plant Layout. In the southwest immediately outside the fenced off area, there was a railroad marshalling yard called the '8th Tupik' (8th siding) which united the two railroad sidings with the Moscow ring railroad net. The railroad was of standard Soviet gauge. There was a concrete platform 50 meters long, and 10 meters wide (point 4, Plant Layout), near the railroad marshalling yard. Raw materials which arrived by rail were unloaded onto this platform by mobile cranes, then taken by truck to the various shops of Plant No. 30. In the same manner finished products from some of the shops of Plant No. 30 were loaded onto trucks, brought to the loading platform and crane-loaded onto railroad flatcars. Most incoming materials were transported by truck. [redacted] 70 percent of the incoming material was brought in by truck and 30 percent by railroad. Of the finished products, only toys, beds, steel girders, spoons, etc., were shipped out by truck. Aircraft, the main plant product, were taxied out to the adjoining airfield shown as point 63, Plant Layout, and flown out. Crated fuselages and wings manufactured by Plant No. 30 were shipped by railroad.

17. The plant had very good asphalt-paved roads, 15-20 meters in width, shown as point 40 on Plant Layout. These roads were adequate for the needs of plant No. 30.

Plant Vehicles

18. The Plant No. 30 transportation facilities were comprised of the following types of vehicles:

a. About 50 passenger cars were available for the director of the factory, shop managers, engineers and other administrative personnel. [redacted] types of vehicles: four ZIS-111, one ZIM (for use of the plant director), 10 M-1 (Molotov cars), [redacted] and six Pobeda (Soviet made cars).

b. Five ZIS autobuses. One had 50 seats and the other four each had seats for about 25 passengers. These buses were used to transport those workers who lived far from the plant to their work site. They were also used for factory outings, for transportation to vacation places, in funeral processions and to take children of the plant employees to summer camps.

c. Five ambulances. Two or three were stationed in the park near the factory polyclinic and two or three were on constant duty at the central airport.

d. Ten tank trucks for hauling kerosene fuel. One was a 20-ton truck 50X1-HUM The others were three 10-ton YaGZ and six three-ton ZIS-5 tank trucks.[1] 50X1-HUM

e. About 275 trucks of the following varieties: ten-ton trailer trucks which were brought to Plant No. 30 in 1945, and were still in good condition in 1956; 150 ZIS-5 three-ton trucks; 50 ZIL four-ton trucks; 25 GAZ two and a half-ton trucks; 25 GAZ one and a half-ton trucks; and two oxygen tank trucks, mounted on a ZIS-5 chassis (see sketch, page 37). There were three mobile cranes. One five-ton capacity crane was mounted on a YAZ-200 truck, the other two three-ton capacity models were mounted on ZIS-5 trucks.[1]

f. Six or seven fire engine trucks, mounted on ZIS-150 trucks.

g. Three towing trucks, used to pull railroad cars. (Plant No. 30 had no locomotives). These trucks formerly had ZIS-5 engines which were replaced by ZIS-150 engines in 1954 or 1955. One truck could tow five 20-ton railroad flatcars.

h. trailers 50X1-HUM were used to transport the various plant products from one shop to another, such as to bring parts from the forge shop to the assembly shop.

Water transportation

19. At times pig iron and other unknown items were brought by ships or barges to the Khimki River Station on the Moskva River and were taken from there by truck to Plant No. 30.

Storage

20. In addition to the storage facilities described in paragraph 44 below, and shown on Plant Layout, Plant No. 30 had a Chemical Depot located about two and one half kilometers from Plant No. 30, on Khoroshevskoye shosse, pinpointed on sketch, page 36 . This depot was an area, about 250 meters square surrounded by a wooden fence about three meters high. Inside the area there were four one-story brick buildings, about 35 x 15 x 15 meters in area dimension. Each building had a basement, and the walls were finished off in wood. In these buildings and basements the following materials were stored: paints, acids, glues and barrels of benzine, oil, and kerosene.

21. The loading platforms described in paragraph 44 below are shown as points 4, 28, 29 and 75 on Plant Layout. many shops 50X1-HUM had their own storage areas. The buildings were fireproof, but there was a fireman on constant alert duty in the tower shown as point 30, Plant 50X1-HUM Layout, to look out for fire. There were also fire extinguishers, a water basin shown as point 53, Plant Layout, and an elaborate fire signal system. there were several small fires during which buildings containing chemicals and paints were completely burned.

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Assembly Line

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22. the plant was an old plant, and did not have conveyors. In those shops where fuselages, wings, tails, and cabins were assembled, teams of workers moved from place to place. In the final assembly shop, the aircraft was moved by crane from place to place to positions in two parallel lines. All buildings where jigs were made (see points 49, 51, 93 and 96, Plant Layout), or where jigs were used for assembly, were equipped with overhead traverse cranes, capacity three to five tons.

50X1-HUM

23. Various shops manufactured jigs, instruments, dies, molds, and forms necessary for the manufacture of aircraft component parts. Many individual shops (50-60) manufactured all parts necessary for wings, tails, fuselages, cabins and nose sections, wheels, etc. The completed wings, tails, fuselages, cabins, wheels, and nose parts, were then taken to the final assembly shop, assembled, and all instruments, armament, photographic and radio equipment, tool kit etc. were installed. After testing the guns, the engines, and a thorough check by Air Force officers and mechanics who were enlisted men, the aircraft was flown from the Central Airport to Ramenak.

50X1-HUM

24. numbers were assigned to planes after they left the plant. each component part had a ticket for control and identification purposes. These tickets were stamped by Plant No. 30 controllers, but only after testing and approval by Air Force officers or mechanics who were enlisted men. Wings, tails, fuselages, and cabins were each described in booklets for control and numbering purposes.

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Production

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25. the weekly aircraft production figures were top secret and were known only to the plant director and his staff.

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six months were required to complete a change over from production of passenger aircraft to bombers (1949-50). During that time no additional employees were hired, nor were old employees dismissed (beyond normal attrition). Instead, most employees worked longer hours, and some shops which regularly operated in one or two shifts, operated three shifts during the change-over period.

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Breakages and Waste

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26. In 1953 the main struts for the wheels were found to be made of defective steel, and were discarded. a high pile of these scrapped parts. several IL-12 fuselages dumped on the scrap pile. in 1945

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Attachment

Aircraft Engine Plant No. 45 produced a copy of a British aircraft engine. However, when these engines were tested at Plant No. 30, the turbines, which had ceramic plates, malfunctioned and broke down. Quite a few (exact number unknown) engines were scrapped. As of 1943, Plant No. 45 made KLIMOV and NOVIKOV type engines for Plant No. 30.

Norm

27. 50X1-HUM

Plant No. 30 did not fulfill its norm. In the opinion 50X1-HUM
of the workers, this was not the fault of the working force, but lay in the fact that the norm set by the Armament Industry Ministry was too high.
no shortages of material or labor, or of strikes. 50X1-HUM
Plant No. 30, though it was old, cramped for space, and lacked modern conveyor systems, was clean, efficient and well run.

Working Conditions

28. The working hours were 48 hours per week, but in the latter part of 1956 the schedule was to be changed to 42 hours per week (six days, with seven hours daily, instead of eight hours daily as it had been formerly.). Some shops operated in three shifts, other shops operated in only two shifts, and office personnel worked only one shift. The truck drivers worked from 0800 to 1700 hours but there were always about 10 chauffeurs on standby duty. The office personnel worked from 0900 to 1300 and from 1400 to 1800 hours. The shifts were from 0800 to 1700 hours, from 1700 to 0100 hours and from 0100 to 0800 hours. The night shift employees worked a total of 42 hours a week. Most people worked in the first shift which had a one-hour lunch period from 1200 to 1300. There were very few people assigned to the night shift. about 25,000 50X1-HUM
people worked in the first shift, 15,000 in the second shift and 5,000 in the third shift. Plant No. 30 was closed on political holidays and on Sundays.

Leaves and Vacations 50X1-HUM

29. Truck drivers received 30 days annual leave with full pay. The Director, shop managers and foremen, and those employees who worked in chemical shops or in the foundry, also received 30 days annual leave. All other plant personnel received 18 days leave annually. Each summer, Plant No. 30 sent from 15 to 50 trucks and about 100 workers, selected from various shops, to farms in the Moscow or neighboring oblasts to help with the harvesting. This farm work was much sought after by the personnel because in addition to their regular factory pay they received TDY money and pay from the farms.

The people sent to help with the harvest were usually at the kolkhozy for three or four months. 50X1-HUM

30. Plant No. 30 also had several children's camps and rest homes for the workers. One children's home was in Nakhabino, near Moscow.

there was no charge for room or board. Leave was granted any time desired, providing the leave request was approved by the shop foreman.

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Workers' Welfare Services

31. Plant No. 30 had the following facilities for the welfare of its workers:

a. A housing section, to provide living space for its employees. Plant No. 30 operated about 50-75 residential buildings for its employees. Besides the buildings shown as points 16 and 17, Plant Layout, Plant No. 30 had many apartment buildings in Petrovskiy Proyezd, five to eight apartment houses in Koptevo, seven to ten buildings in Oktyabrskoye Pole, and was constructing new residential buildings. The buildings were five to eight stories high, of various sizes.

b. A club, located on ulitsa Pravdy near Leningradskoye shosse. This was a three-story gray stucco building, about 30 meters square, which contained a movie theater, club, meeting rooms, game rooms, music rooms, and library which provided a meeting place for choreographic, musical, chess and sport circles.

Wages

32. Truck drivers earned between 1000 - 1200 rubles monthly, depending upon the tonnage hauled and the number of kilometers driven. Lathe operators earned about 700 rubles monthly. Instrument specialists earned 1000-1500 rubles monthly. People in the welding, chemical, and galvanizing shops earned 1500-1600 rubles monthly. Office personnel averaged 600 to 800 rubles monthly. 50X1-HUM

Sanitary Conditions

33. The plant had two polyclinics shown as points 17 and 27, Plant Layout. Each employee of Plant No. 30 had to be X-rayed once a year. The shops were kept in fairly clean condition.

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Security

34. The position of the guards is indicated on the Plant Layout. The plant had about 250 guards, both male and female, who wore a greenish-gray uniform without shoulderboards. The female guards carried pistols, whereas the male guards were armed with rifles. the guards belonged to the MGB. The chief of the guards wore a khaki military uniform without shoulderboards. There were about 20 German police dogs which were on long leashes at night. 50X1-HUM

35. Each employee had a pass which was of black cardboard folded in the center to a size about eight centimeters by five centimeters. There was no writing on the outside cover. On the inside cover there was a place for a photograph, name, last name of the employee, factory stamp and signature of a factory official and of the bearer. Furthermore, each pass had a certain letter stamped on it which indicated the entrance gate to be used by the employee. Employees were given their pass when reporting for work at the appropriate gate and were required to turn in the pass to the timekeeper in their particular shop. In the evenings, the workers picked up their passes from the timekeepers and left them at their respective entrance gates. Truck drivers

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picked up their passes when reporting for work and turned them in when leaving, but kept the pass with them during their working hours because they were always entering and leaving the plant area.

36. Plant No. 30 had also about 30 or 40 uniformed firemen who belonged to the Militia or the NKVD.

Atomic Shelter

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37. A reinforced concrete underground building was located at a site shown as point 95, Plant Layout. this construction was an atomic air-raid shelter and was reserved for the use of the Director and his staff. There were no other air-raid shelters in the plant area. The plant personnel did not receive atomic defense lectures.

Organization and Personnel

38. The plant administration section consisted of the Director, shop managers, engineers, and technologists. Plant No. 30 had about 100 different shops, the final assembly shop; 50X1-HUM assembly shops for: fuselage, wings, tail, nose, cabin and ailerons; jig manufacturing shops; an instrument shop; forge and press shops; die shop; foundries; repair shops; machine shops; compressor shop; sawmills and carpenter shops; girder shop; a shop for processing scrap; a shop for production of toys, forks, spoons, and iceboxes; a shop for production of milk cans; a shop where kerosene stoves were produced; a galvanizing shop; paint shops; and a shop for repairing and testing scales. Other section were: a truck drivers' section; a garage mechanics' section; the guards and firemen's sections; the restaurants; the warehouses and 50X1-HUM storage sections; several laboratories; a medical section; a technical section; the controlling sections; the transportation section, which did not include garages and drivers, but was only for internal traffic composed of the electric lorries and tow trucks; a section for construction and maintenance of apartments for factory employees; the Communist Party and Komsomol section; the Plant Committee section; and an aircraft repair section (about 150 people).

39. Plant No. 30 employed about 45,000 workers, assigned to different sections and shops as given in paragraph 44 below. about 80 percent of the employees were engaged in actual production of aircraft, and 20 percent were engaged in auxiliary capacities such as; truck drivers, electric lorry operators, workers who manufactured toys and other by-products, guards, maintenance mechanics, electricians, furnace firemen, cleaning personnel, restaurant personnel, etc. 50X1-HUM the administrative staff (shop managers, foremen, engineers, and technologists) numbered about 1000. The office staff included about 2000 people. Furthermore, the plant had 300 to 400 Air Force officers, ranging in grade from lieutenant to colonel, and about 100 Air Force enlisted men who were mechanics. These military personnel were on constant duty testing fuel tanks, instruments, individual parts, component parts of the wings, fuselages and tail sections and also the finished assembled products, and performing test flights. 70 to 80 percent of the personnel were male. About 2000 to 3000 workers were unskilled laborers. The Plant also had 500 to 600 apprentices.

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Attachment

40. [redacted] No prisoners or convicts worked in Plant No. 30. About 300 Russian and Chinese students of the Moscow Aviation Institute came to Plant No. 30 for practical experience and worked there for about 20 days using the lathes, and drilling, welding and other machinery. In 1951 (exact year unknown) about 300 skilled mechanics from Plant No. 30 were sent by the plant to a large airframe assembly plant near Kuybyshev. These men travelled by railroad and accompanied a large railroad shipment (exact amounts unknown) of aircraft component assembly jigs. About one-half of the workers returned to Plant No. 30 after six months, the rest remained at the Kuybyshev Plant. Annually, from 1951-56, shop managers, foremen, and specialists were assigned to two or three months temporary duty at Kuybyshev. About 50 Plant No. 30 electricians and mechanics, and five drivers were regularly employed at the Ramenak Airfield. They were billeted in barracks at the airfield, worked five days weekly, and spent the weekends with their families in their homes in Moscow. Three Plant No. 30 trucks were also maintained continuously in Ramenak. These trucks were used to haul yellow and silver paint from the Ramenak Airfield to Plant No. 30. 50X1-HUM

41. [redacted] breakdown of assignment of truck drivers of Plant No. 30: The truck drivers section was headed by a manager, an assistant manager, and seven section foremen who supervised the following sections:

Section 1: 30-40 drivers for Mack 10-ton trucks and cranes, buses, fuel trucks.

Section 2. 50 drivers for ZIS-5 three-ton trucks.

Section 3. 50 drivers for ZIS-5 three-ton trucks.

Section 4. 50 drivers for ZIS-5 three-ton trucks.

Section 5. 50-60 drivers for ZIL four-ton trucks.

Section 6. 60 drivers for GAZ two and one-half and one and one half-ton trucks.

Section 7. 50-60 drivers for passenger cars and ambulances.

Personalities

42. [redacted] supervisory personnel employed at Plant No. 30 in 1956: 50X1-HUM 50X1-HUM

a. VORONIN, Pavel Andreyevich, was the Director of Plant No. 30. [redacted]

b. KOKINAKIN (fnu), an Air Force general. General KOKINAKIN was one of the most famous Soviet pilots. [redacted]

50X1-HUM

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Attachment

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c. KOKINAKIN (fnu), an Air Force colonel. This colonel was a brother of General KOKINAKIN mentioned above.

d. SOLNTSEV (fnu), an MGB colonel who was deputy to the Director for personnel procurement.

e. GAPONIN, (fnu), an MGB colonel, replaced SOLNTSEV in 1954, and was deputy to the Director for personnel procurement.

50X1-HUM

f. PETUKHOV (fnu), a major in the Air Force.

g. SLABODKINA (fnu), was chief of shop no. 9.

h. SOKOLOV (fnu), was chief technologist.

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i. STRYZHNOV, Matvey Maksimovich, was chief of the truck drivers and chauffeurs.

j. PAVLOV, Il'ya Alekseyevich, was deputy to STRYZHNOV.

k. STROYEV (fnu), was chief of Shop No. 24.

l. BAKHOVSKIY (fnu), was chief of the toy department.

m. BUROV (fnu), was foreman of the toy shop.

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50X1-HUM

50X1-HUM

n. KRUSHEVSKIY (fnu) was business manager and deputy to the Director for commercial affairs.

o. ROMANOV (fnu), was chief of the blacksmith shop.

p. SOLNTSEV, Ivan Andreyevich, was foreman of the truck drivers' section.

q. OVECHKIN (fnu), was the Communist Party Secretary for Plant No. 30.

Visitors

50X1-HUM

43. The following persons were known to have visited Plant No. 30 on various occasions: USTINOV (fnu) Minister of Armament Industry and officials of the Aviation Industry visited Plant No. 30 about twice annually. They watched the work being performed and looked at the finished products of some shops. Other visitors to Plant No. 30 were (1945-56 period):

KHRUSHCHEV in 1955; TITO, President of Yugoslavia, in 1948. ILYUSHIN, the plant designer, in Plant No. 30. ILYUSHIN lived 50X1-HUM near the subway station 'Sokol'. STALIN's son, a Lt. General in the Air Force, had his personal car serviced in Plant No. 30 and was a frequent plant visitor up until 1952.

Buildings

44. Refer to Inclosure 1 sketch of Plant No. 30 layout. The following legend identifies the numerical designations: 50X1-HUM

Point 1. Military Kaserne. This was an area about 300 meters square surrounded by a wooden fence two and one half meters in height. 50X1-HUM many ZIS-150 trucks and small Willys jeeps. Inside the fenced off area were three rows of five four-story red brick buildings, each about 80 meters x 25 meters in area dimension. 50X1-HUM a mechanized unit of the Moscow garrison was located in this kaserne. troops leave from this Kaserne in ZIS trucks and in jeeps for the parades held in Moscow on the first of May.

Point 2. Open work area. In this area, about 70 meters x 50 meters, large

50X1-HUM

discarded steel and iron jigs, and rejected parts were cut up into small parts for scrap material by means of an autogen (Avtogen).

Point 3. Crushing press. This was a one-story gray brick building, about 30 meters x 10 meters in area dimension. A press broke up waste steel and iron into scrap material.

Point 4. Railroad terminal. At this point the railroad lines servicing Plant No. 30 connected with the Moscow ring. The terminal was called the 8th siding (8th Tupik). The area also contained a platform about 50 meters long and 10 meters wide from which scrap steel and iron were loaded onto railroad flatcars.

Point 5. Sawmill. This was an area about 200 meters long and 60 meters wide containing seven to ten one-story wooden barracks, each about 50 x 20 meters in area dimension. Some buildings were used as storage points for cement, sand, flour, glass, etc; other buildings were carpenter shops and sawmills. The carpenter shops made moulds for the foundry, wooden doors and window frames for new buildings under construction, and various items used in Plant No. 30, such as work benches, clothes closets, etc. Stacks of lumber were stored in a yard in this area. The carpenter shops were equipped with about 10 electric saws, and several planing, drilling and cutting machines (source was not certain of these details). The sawmill operated in two shifts, and employed about 150 people on each shift.

Point 6. Boilerhouse. This was a one-story gray brick building about 10 meters square, containing one furnace which supplied heat to the buildings shown as points 7 and 8, below. 50X1-HUM

50X1-HUM

Point 7. Toy shop. This was a one-story, white brick building, about 100 meters long and 35 meters wide. One end of the building was two-stories high and extended over an area about 20 meters x 35 meters. The building had a black metal gabled roof. On the first floor were five lathes, two or three planing machines, four cutting-crushing machines, eight presses, eight drilling machines and five or six pipe cutting machines, all of which were old Soviet-make machines in poor condition. This shop made sleds, toy horses, ladles, spoons, forks and beds. On the second floor, at the end of the building, were offices, a library, club rooms and lockers for the workers. This shop usually operated in two shifts, employing 120-150 people on each shift. 50X1-HUM

Point 8. Foundry. This was a one-story grayish-white building, 150-200 meters x 30 meters in area dimension. One end of the building which extended over an area 20 meters x 30 meters was three stories high. This building contained ten electric furnaces. Kerosene stoves were manufactured in this foundry. On the second and third floors were dining rooms, offices, a library, a club and a first aid station where a doctor and a nurse were on constant duty. The foundry operated in two shifts, employing about 150 people on each shift.

Point 9. Fence. A wooden fence, about three meters high topped with barbed wire separated three areas (points 6, 7, and 8) and also surrounded the experimental factory shown as point 10, as well as all buildings of Plant No. 30.

Point 10. Experimental factory. This was an area about 400 meters square surrounded by a separate fence. 50X1-HUM Jet aircraft engines being tested in this area. When some engines were tested, the sound could be heard for about five minutes in a radius of about five kilometers, the ground vibrated and flashes of fire could be seen for two 50X1-HUM to three seconds. In 1947 and 1948 German V-1 and V-2 rockets were brought to this factory the prototype of the light bomber (believed to be the Beagle-Ilyushin-28) manufactured in Plant No. 30 was produced in the experimental factory.

Point 11. Gate. This was the entrance to the toy shop, foundry and boiler-house, shown as points 6, 7, and 8 above. There were two entrances for employees and one entrance for vehicles. Three female guards were always on duty at this gate, checking plant passes and vehicles.

Point 12. Gate. This was the entrance to the experimental factory shown as point 10 above. There were four or five entrances for employees and one entrance for vehicles. Six to seven female guards were always on duty at this gate, checking plant passes and vehicles.

Point 13. Gate. This was an entrance for a railroad line, vehicles and employees. Four to five male and/or female guards were always on duty at this gate, checking plant passes and the contents of railroad cars, and vehicles.

Point 14. Railroad lines. There were two single-track railroad lines of the standard Soviet gauge which served the plant area.

Point 15. Hospital. This was the Botkinskiy Hospital, a Moscow City hospital. It occupied an area about 800 meters x 500 meters and was composed of 15-20 buildings ranging from one to four stories in height. It was one of the best hospitals in Moscow and had all types of wards.

Point 16. Residential area. This area contained one 10-story apartment building, about 200 meters long and 50 meters wide, and three six-story apartment buildings, about 100 meters long and 30 meters wide. These buildings were quarters for the employees of Plant No. 30 only.

Point 17. Polyclinic and apartment house. This new building constructed in about 1954 was a 10 or 12-story white brick building, about 170 meters x 30 meters in area dimension. The first floor contained a polyclinic staffed by 50 doctors and nurses, as well as a day nursery for small children. The other floors contained

apartments. The polyclinic, day nursery and apartments were for employees of Plant No. 30 only.

50X1-HUM

Point 18. Trolley car stop.

Point 19. Trolley car line This trolley line went along Botkinskiy Proyezd and Leningradskoye shosse, servicing Plant No. 30. Streetcars traveled along this route about every ten minutes.

Point 20. Factory trade school. This was a three-story white brick building about 50 meters x 25 meters in area dimension where about 300 Plant-30 apprentices were trained as lathe operators, mechanics, machinists, etc. These apprentices were billeted, fed, and supplied with clothing by Plant-30, but they did not receive any salary.

Point 21. Printing shop. This was a two-story gray brick building about 20 meters square where a factory newspaper, various bulletins, labels and tags for the various plant products such as beds, toys, etc. were printed.

50X1-HUM

Point 22. Repair shop. This was a one-story, gray brick building about 75 meters long and 35 meters wide.

the inside layout and machinery, as described below, remained unchanged in 1956, but the numerical designation was changed to No. 54 50X1-HUM

In 1946 shop No. 10 worked one shift, employing 50X1-HUM about 100 people, but in 1956 this shop operated in two or three shifts, employing about 100 people on each shift. This building also contained a repair shop which operated in two shifts, employing about 100 people on each shift. Shop No. 10 made various metal items for Plant 30, such as drills, bits, stands, jig parts, hand trucks, steel containers, etc., used in the manufacture of aircraft parts (see page 35 for the layout of this building).

Point 23. Repair shop. This was a one-story gray brick building about 15 meters long and 10 meters wide. Here the motors of various machinery were repaired. The shop contained two lathes, two milling machines, and several benches for machinists.

Point 24. Girder shop. This was a one-story gray brick building about 50 meters x 25 meters in area dimension where steel girders and beams used in building construction were manufactured. In an open area outside of the shop there were two or three drying furnaces. This shop operated in three shifts, employing about 100 men on each shift.

Point 25. Plant entrance. There were two entrances for employees and one for vehicles at this location. Three or four female guards were on constant duty at this entrance checking plant passes and vehicles.

Point 26. Railroad entrance. The railroad line (point 14 above) entered the plant area at this point. One or two male guards were on constant duty at this entrance, checking the contents of the railroad cars.

Point 27. Polyclinic. This was a four-story gray stucco building, about 100 meters long and 35 meters wide. On the first floor there was a polyclinic staffed by 10 doctors and 10 nurses who conducted annual physical examinations of the plant personnel. Part of the first floor was taken up by a model carpenter shop, where prototype moulds for the foundry were made. The second floor of the building was occupied by the technological sectio[illegible] 50X1-HUM and had various drafting and planning offices .

Point 28. Loading platform. This was a reinforced concrete platform about 80 x 30 meters in area dimension. A mobile ten-ton crane, mounted on a reinforced cement platform stood at this point.

Point 29. Loading platform. This was a reinforced concrete platform about 50 meters long and 10 meters wide.

Point 30. Fire station. This was a three-story red brick building about 30 x 20 meters in area dimension. The first floor contained six or seven fire engines mounted on ZIS-150 chassis. The second floor contained bedrooms and alert rooms for the firemen, and on the third floor various offices were located. This building had an observation tower about 50 meters high manned by one or two firemen on 24-hour watch. [illegible] the plant 50X1-HUM employed 30 to 40 firemen.

Point 31. Paint shop. This was a very tall one-story frame and brick building about 200 meters x 80 meters x 50 meters in dimension, which contained two shops. In one shop, wings, fuselages, ailerons, tail sections and pilot's cabins were painted. In the second shop, imitation leather protective covers for aircraft engines and cabins were made. This second shop also manufactured imitation leather tool kits which were placed in the aircraft. The paint shop operated in three shifts, employing about 100 people on each shift, whereas the other shop worked only two shifts, employing about 100 people on each shift.

Point 32. Storage. This was a one-story gray brick building, about 30 meters long and 20 meters wide, which served as a storage area for aluminum and steel sheets and various pipe.

Point 33. Restaurant. This was a one-story, blue painted, wooden barrack type building, about 20 x 10 x 4 meters in dimension.

Point 34. Gate to the Central Airfield. This was a barbed wire fence, which formed a gate between Plant 30 and the Central Airfield. At intervals there were openings in the barbed wire, to permit aircraft from Plant 30 to be taxied out to the airfield. These entrances were guarded by Plant 30 guards. There were heavy

chains across the entrance gates. There were also winches and hoists near the gates [redacted] 50X1-HUM

Point 35. Hardstands. This was an area about 200 meters square, paved with asphalt. IL-12 aircraft undergoing minor repairs were parked here and repaired in this open area.

Point 36. Parking area. This was an open area about 200 meters x 100 meters where 50-60 electro-cars were parked. Some of the electro-cars were empty, some were loaded with wings, cabins or fuselage parts awaiting shipment to the final assembly shop.

Point 37. Storage area. This was an outdoor storage area about 200 meters by 100 meters where various wooden boxes were stored.

Point 38. Garage. This was a one-story gray brick building about 150 x 30 meters in area dimension. The larger part of the building served as a garage for about 150-200 electro-cars, and for the fuel trucks. The northern end of the building, a section about 30 meters square, was three stories in height. In this three-story section, the first floor contained a laboratory, of which source knew no details. The second floor had various offices, and a radio station was located on the third floor. A straight antenna about five meters in height, topped by a round disk about one meter in diameter, was mounted on the roof of the radio station. [redacted] this was a radio homing station.

50X1-HUM

Point 39. Tank testing shop. This was a one-story gray brick building about 20 meters square where the aircraft rubber fuel tanks were tested for pressure. The rubber tanks were placed in metal casings, and kerosene was poured into the tanks. The kerosene was kept in the tank several hours and then was poured out. Five or six Air Force officers were always present at these tests. Source did not know the checking procedures, but he saw that the officers entered some notes in a booklet, and the women who conducted the testings stamped the tanks with a rubber stamp, after approval by the Air Force officers. This shop operated in three shifts, employing about 10 women on each shift.

Point 40. Streets. The streets inside the plant area were 10 to 20 meters in width, were all asphalt paved and were in good condition.

Point 41. Storage area. This was an outdoor storage area about 50 meters square where empty boxes, as well as wooden boxes containing aircraft engines and/or parts, were stored.

Point 42. Cabin shop. This was a one-story building with gray brick and glass walls, about 100 x 50 x 35 meters in dimension, with a saw-tooth steel skylighted roof. Here the duraluminum pilot's cabins were manufactured. This shop operated in three shifts, employing about 1,100 people on each shift. [redacted] 50X1-HUM

Point 43. Hardstands. Two passenger planes, one a two-wing plane of the type U-2 50X1-HUM were parked in this area. These two planes ferried pilots from the Ramenak Airfield to the club house shown as point 45, below. 50X1-HUM

50X1-HUM

Point 44. Gun firing pit. This was a gray brick, three-walled pit, about 35 meters square with a steel roof. Inside this structure were earth pits where the aircraft machine guns were tested. the aircraft was towed into this installation nose first, and the nose and wing guns were test fired. Afterwards the plane was rolled out and rolled in tail first, and the tail guns were test fired. The time required for this procedure was about one hour for one aircraft.

Point 45. Club house. This was a two-story brick building about 25 meters x 15 meters in area dimension. Test pilots ranging in grade from lieutenant to colonel who test flew the aircraft produced in Plant 30 from the Central Airfield to the Ramenak Airfield, Air Force technical and engineering officers who tested the various parts manufactured in Plant 30, and Air Force mechanics waited in this building for their various jobs. 50X1-HUM

50X1-HUM

Point 46. Final assembly shop. This was a one-story building with gray brick and glass walls, about 400 x 70 meters in area dimension with a saw-tooth steel skylighted roof. This building was off limits to all personnel not assigned to this building. there 50X1-HUM were two parallel platforms, on which the aircraft fuselage, 50X1-HUM wings, nose section, pilot's compartment, and the tail section were assembled. all the other equipment including engines, machine guns, radio apparatus and instrument panels were installed in the aircraft in this shop. a total of 4,000 to 5,000 people worked in this building during the three shifts. Stairs led to a mezzanine which formed a second floor. On this floor there were offices for the shop manager, foremen, engineers, technical and technological sections, bookkeeping section, and dining rooms, rest rooms and storage rooms. This building was equipped with a loud speaker system.

Point 47. Electric doors which opened into the final assembly shop.

Point 48. "Monolit". This building called "Monolit" had walls of gray brick and glass, and was about 350 x 200 meters in area dimension. It had a saw-tooth steel skylighted roof. This building contained 20-30 different shops and was equipped with 2000 various machines such as polishing, planing, drilling, milling machines, presses, etc. Up through 1955, this shop had Hungarian make machines. In 1955 these 50X1-HUM machines were replaced with new Soviet machines, type DIP 200. 50X1-HUM DIP 300, DIP 400, DIP 500 and DIP 700, manufactured by the Krasnyy Proletary in Moscow. The initials DIP were the abbreviation for "Dognyat I Peregnyat", (catch up with and overtake). This shop employed about 10,000 people on all three shifts, and manufactured all the necessary parts for aircraft, such as

wheels, ribs, bolts, screws, nuts, etc. Stairs led to a mezzanine which formed a second floor. On the mezzanine were offices for the shop manager, technologist, foremen, engineers, as well as technical, technological, bookkeeping offices, dining rooms, storage rooms and rest rooms.

Point 49. Wings, Tail and Aileron Shop. This was a one-story gray brick and glass building about 350 meters x 40-50 meters in area dimension, with a saw-tooth steel skylighted roof. The entrance to this building was restricted and source was there only once. The building contained jigs, air hammers, drilling machines, presses and other machinery. A total of about 4,000 people worked in three shifts in this shop making wings, tail sections and ailerons. There were special doors connecting this shop to point 46, Plant Layout.

Point 50. Compressor Shop. This was a one-story gray brick building about 30 x 20 meters in area dimension, containing air compressors which furnished air by means of pipe lines to various shops for use in operating air hammers, etc. 50X1-HUM

Point 51. Jig Shop. This was a one-story gray brick, steel and glass walled building, formerly of frame construction, which had been completely remodeled in 1934. The machinery was not replaced. The building was about 70 x 35 meters in area dimension with a saw-tooth steel and skylight roof. It contained lathes, and planing, drilling and milling machines. Jigs for the assembly of fuselages and wings were constructed in this building. [redacted] a total of 2500 people worked here in three shifts. Stairways led to a mezzanine which formed a second floor. On this floor there were offices for the shop manager, foremen, engineers, technical and technological sections, and a bookkeeping section, and dining rooms, rest rooms and storage rooms. 50X1-HUM

Point 52. Furnace. This was a one-story gray brick building about 30 x 20 meters in area dimension containing three furnaces.

Point 53. Water basin. This tank, about 30 meters square and two meters deep, contained water to be used in case of fire.

Point 54. Furnace. This was a one-story gray brick building, about 50 meters long and 20 meters wide which contained five furnaces.

Point 55. Oxygen storage. There were two one-story brick buildings each about 30 x 10 meters in area dimension, and which were raised on steel columns used for the storage of oxygen bottles. Two special oxygen trucks were parked in this area (see sketch of trucks, page 37).

Point 56. Stadium called 'Velodrom' seating about 15,000 people.

Point 57. Main entrance. This entrance had seven gates for employees and a gate for passenger cars only. Two guards were stationed at each employee entrance and one guard was posted at the passenger car gate at all times.

Point 58. Guard houses. This was a two-story stucco building, 15 x 10 meters in area dimension. On the first floor were rooms for the guards, and the second floor contained offices for the guard chief and his staff.

Point 59. Park containing gardens, fountains, etc. leading from main entrance.

Point 60. Forge shop. This was a one-story gray brick and glass building, about 70 x 25 meters in area dimension, with a saw-tooth steel skylighted roof. This shop contained a mazut furnace, air hammers and five forges . The shop produced various aircraft parts. This building was enlarged in 1955, when a new large Soviet-make forge press, about 15 meters in height, five meters long and two meters wide, was installed. In order to place this press in the forge shop the building was enlarged by about 10 meters. The new construction had the same type walls and roof as the remainder of the building. a total of 300 people were employed here in three shifts. Stairs led to a mezzanine which formed a second floor. On this floor were 50X1-HUM offices for shop manager, foremen, engineers, technical and technological sections and bookkeeping section, and dining rooms, rest rooms, and storage rooms.

Point 61. This was a two-story gray stucco building, 120 x 35 meters in area dimension with a gabled steel skylighted roof. Shop No. 24 (designation may have changed) was located on the first floor. Punches, dies, and moulds were made in this shop which contained 25-50 lathes, five to ten planing machines, five to ten milling machines, three to five polishing-grinding machines, vertical 50X1-HUM machines and machinists benches. The shop operated in two shifts, employing a total of about 400 people. The second floor was occupied by Shop No. 9, an instrument shop. (See sketch of shop layout, page 34 , for additional details.) In the center of the building there was a third floor, about 40 x 35 meters in area dimension; a laboratory, technical library and drafting offices were located in this section. The third floor area was restricted and source could supply no other information.

Point 62. Engine run-up area. This was an open outdoor area about 300 meters long and 100 meters wide. About 10 to 15 aircraft were usually parked in this space where mechanics tested the engines. This was the final phase of the aircraft production process and after the engines were tested the aircraft were taxied to the Central Airfield, point 63, below.

50X1-HUM

Point 63. Central Airfield. This airfield was for both civilian and military planes. According to rumor, in 1956 the civilian air traffic was to be transferred to Vnukovo (N 55-39, E 37-17) and the Central Airport was to be for military aircraft only.

Point 64. Service station. This was a gasoline filling station used by the trucks of Plant 30. It included underground gas storage areas

and a small, one-story frame office building, about 10 meters square.

Point 65. New shop. This was a one-story gray brick and glass walled building, about 180 meters long by 50 meters wide, the location of a new galvanising shop and foundry. In September 1956, only the exterior had been completed, and the building was not roofed. No machinery had been installed. [redacted] scrap metal, boards and boxes were stacked up inside the new shop. 50X1-HUM

Point 66. Transformer station. This was a red brick building about four by four by three meters in dimension, which contained two electric transformers. [redacted] 50X1-HUM

Point 67. Coal dump. This was an open air storage area with a coal pile about 60 meters long, 10 meters wide and three meters high.

Point 68. Garage. This was a one-story, gray brick building about 120 x 25 meters in area dimension, with a sheet metal roof. This garage also had a repair shop which contained five lathes, three milling machines, three drilling machines and two polishing-grinding machines. All the maintenance and repair work on plant passenger cars and trucks was done in this shop. There were also 15-20 trucks parked inside this building. About 100 people worked in this garage in two shifts.

Point 69. Parking area. About 200-300 trucks were parked in an irregular pattern in this area.

Point 70. Administration building. This was a three-story, 'L' shaped building. One wing was 80 x 25 meters in area dimension, and the other wing about 30 meters square. On the first floor were offices for factory committees, a personnel section, a passport and documentation section, a leave records section, and the cashier's office. The second floor contained various bookkeeping offices. The third floor contained offices for the plant director and his staff, engineers, technologists, and for the Communist Party officials.

Point 71. Restaurant. This was the main plant restaurant, a four-story brick and glass building about 70 x 35 meters in area dimension. The first, second and third floors each contained two large dining rooms, each with a seating capacity of about 1000 people. On the fourth floor were dining rooms reserved for the director, his staff, technologists and engineers.

Point 72. Trolley stop.

Point 73. Tennis courts.

Point 74. Storage area. This was an outdoor storage area about 100 meters square where Duraluminum sheets were stored.

Point 75. Storage building. This was a five-story gray brick building, about 50 meters long and 35 meters wide. This storage area was called the 'fifth depot'. In front of this building was a small reinforced concrete loading platform equipped with a crane. On the first and second floors of the building, steel sheets, iron ingots, girders and plexiglass were stored. 50X1-HUM on the other floors Duralumimum sheets were cleaned and 50X1-HUM there were other workshops containing various instruments. This storage building operated in three shifts, employing about 500 people.

50X1-HUM

Point 76. Repair shop. This was a one-story gray brick and glass building, about 15 x 10 meters in area dimension, which contained either a repair shop or a storage area.

Point 77. Tank shop. This was a three-story gray brick building, about 25 x 15 meters in area dimension. On the first floor, rubber fuel tanks were manufactured. A machine shop was located on the second floor, and the third floor contained various offices.

50X1-HUM
50X1-HUM

Point 78. Machine shop. This was a one-story gray brick and glass building about 80 meters square. four-engine bomber. This building was off limits

Point 79. Hangar. This was a one-story gray brick and glass building about 80 meters square with a glass roof. In this hangar finished aircraft were painted with a silver paint. This shop operated in three shifts, employing about 100 people.

Point 80. Paint storage. This was a one-story red brick building about 25 meters long and 10 meters wide, raised above the ground on steel columns. This storage building contained paints and various chemicals. At this point soap was issued to the plant employees. At the rear of the building was a kennel for 20 German police dogs used for night guard duty.

Point 81. Textile storage. This was a one-story gray brick and glass building about 50 meters square with a steel roof. In this building Dermantin, an artificial leather material used to cover the aircraft engines and cabins, was stored. At this storage point special coveralls and protective clothing were issued to the plant employees. In the rear of the building was a shop where Duralumimum sheets were cut into various shapes. The storage area worked in two shifts, whereas the Duralumimum shop operated in three shifts. a total of 50X1-HUM 300 people worked in this building.

Point 82. Garage for passenger cars. This one-story gray brick building, about 100 x 25 meters in area dimension was a garage for plant passenger cars and autobuses. The building also contained some work benches for machinists. A stairway led to a mezzanine containing offices for the garage chief and the bookkeeping section, and a club room.

Point 83. Gate. This gate connected the old plant No. 1 with the other plant, when these two plants were merged in 1950. This gate was used only by vehicles and truck drivers. Two to three guards were on duty at this gate at all times checking the contents of the vehicles. All Plant 30 buildings enumerated below located east of point 83 formerly had formed a separate shop. In 1950 these buildings were incorporated into the Plant 30 area.

Point 84. School. This was a three-story white brick school building about 50 meters long and 25 meters wide, built in 1954, for the children of plant employees.

Point 85. Stadium, called "Stadium of Young Pioneers", seating capacity, about 10,000.

Point 86. Trade School. This was a four-story red brick building about 70 x 25 meters in area dimension. Up until 1954 this building was a plant polyclinic. After that date the polyclinic was transferred to the new building shown as point 17 above, and this building was converted into a trade school for training Plant 30 employees in various aircraft construction techniques.

Point 87. Gate. This gate had eight entrances for employees and one entrance for vehicles. About 20 guards were on duty at this gate at all times, checking the passes of the employees, and the contents of the vehicles.

50X1-HUM

Point 88. Storage building. This was a four-story gray brick building, about 100 meters long and 30 meters wide, called "Depot Metisov". Various aircraft instruments and radio equipment were stored on the first floor. Aircraft machine guns were stored on the second floor. Various items of installed equipment were stored on the third floor. [redacted] the fourth floor contained offices. Electrical wiring and radio cables were stored in the basement of this building. The depot operated in two shifts, employing about 150 people on each shift.

Point 89. Ejection seat testing area. This was a steel tower, about five meters in height, about one meter square constructed like a pilot's cabin. The ejection seats for the pilot and navigator were tested in this tower.

Point 90. Galvanizing shop. This was a one-story gray brick and glass building, about 200 x 35 meters in area dimension with a saw-tooth steel skylighted roof. It contained three large forges for processing engines cowlings and a galvanizing section. This shop also manufactured milk cans from the scrap metal. This building contained an unknown number of electrical welding machines. Stairs led to a mezzanine which formed a second floor. On the second floor were offices for the shop manager, technologists, engineers, foremen, technical and technological sections, a bookkeeping section and dining rooms, storage rooms, and rest rooms. This shop operated in three shifts, employing a total of 500 people.

Point 91. Compressor shop. This was a one-story gray brick and glass building about 100 meters long and 30 meters wide, containing two compressors and eight to ten furnaces. 50X1-HUM the furnaces were old and in bad 50X1-HUM condition.

Point 92. Mechanical shop. This was a one-story gray brick and glass building, about 100 meters long and 30 meters wide, with a saw-tooth steel skylighted roof. It contained many lathes and milling machines. All the apprentices attending the plant trade school were trained in this shop for their various jobs. This shop operated in three shifts, employing a total of about 2000 people.

Point 93. Jig shop. This was a one-story gray brick and glass building about 100 x 30-35 meters in area dimension, with a saw-tooth steel skylighted roof. This shop produced the various jigs used at the plant and aircraft cabins. Stairs led to a mezzanine which formed a second floor, where the offices for the shop manager, technologists, engineers, technological and technical sections, and bookkeeping sections, and storage rooms, dining rooms and rest rooms were located. This shop operated in three shifts, employing a total of 1500 people. 50X1-HUM

Point 94. Laboratory and offices. This was a three-story gray brick building about 35 meters square. laboratory located on the first floor of the building. observed an electronic computer being unloaded at this building. The computer was about two meters long, 50-60 centimeters wide, and 80-100 centimeters in height, with typewriter keys placed in front at a 45 degree angle. The front side of the computer had dials, scales and pushbuttons. The second floor contained payroll offices. The third floor had a photography laboratory and a technical section, the latter of which was primarily concerned with initiating safety procedures for plant personnel.

Point 95. Air raid shelter. This building constructed at the end of 1955 or in the beginning of 1956, was an underground shelter of reinforced concrete about 30 meters square. The roof was covered with earth and was about two meters above the ground. The exact purpose of the building was not known, it was to serve as an air raid shelter for the plant director and his staff. 50X1-HUM

Point 96. Fuselage assembly shop. This was a one-story "L" shaped building, with gray brick and glass walls and a saw-tooth steel skylighted roof. One wing was about 100 x 35 meters in area dimension, and the smaller wing was about 80 x 35 meters in area dimension. In this shop all fuselage parts were manufactured and fuselages were assembled. Stairs led to a mezzanine which formed a second floor where the offices for the shop manager, technologists, engineers, foremen, technical and technological sections, and bookkeeping sections, and storage rooms, dining rooms, and rest rooms were located. This shop operated in three shifts, employing

a total of 4000-5000 people.

Point 97. Machine shop. This was a one-story brick building about 40 meters long by 20 meters wide where steel containers, about 60 centimeters x 60 centimeters x 60 centimeters, were made.

Point 98. Airfield buildings, apartment buildings, office buildings, shops of various sizes, on the Central Airfield.

Point 99. Airfield control tower. This was a two-story brick building about 30 meters long x 20 meters wide with a tower about 30 meters high. An antenna was mounted on top of this tower.

Point 100. Five or ten airfield hangars, each about 60 x 30 meters in area dimension. Source saw these hangars from a distance and could not give any details.

Point 101. Moscow city swimming pool. This pool was constructed in/or about 1950.

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Point 102. Laboratory. This was a five-story gray brick building, about 100 meters long and 35 meters wide. This building was off limits to all unauthorized personnel. the building contained laboratories and experimental sections. The chief of the construction and maintenance section for apartments for Plant 30 personnel, had offices in this building.

Point 103. Carpenter shop. This was a one-story brick building, about 40 meters long and 15 meters wide where various wood items were made. This building had a basement where boards and lumber were stored. This shop operated in two shifts, employing a total of about 150 people.

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Point 104. Foundry. This was a one-story gray brick and glass building, about 100 meters x 30 meters in area dimension, with a saw-tooth steel skylighted roof.

Point 105. Gate. This gate had two entrances for employees and one for vehicles. Three to four guards were on constant duty at this gate, checking the plant passes and the contents of the vehicles.

Point 106. Storage. This was a one-story red brick building about 20 by 10 meters in area dimension where various carpentry products, made in point 103 above and in point 109 below, were stored.

Point 107. Storage area. This was an open air storage area about 100 meters long and 50 meters wide where empty wooden boxes, wooden boxes containing aircraft parts, and Duraluminum sheets were stored.

Point 108. Weight repair shop. This was a one-story brick building, about 30 meters long and 15 meters wide where scales, ranging in capacity from five kilograms to 350 kilograms, were repaired and tested. these scales had no connection with Plant 30, but were for other (unknown) factories. This shop

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operated in two shifts, employing about 200 people.

Point 109. Carpenter shop. This was a one-story brick building, about 40 x 15 meters in area dimension where window frames, parquet flooring and doors for apartment buildings were made. This shop operated in two shifts, and employed about 150 people.

Point 110. Botkinskiy Pereulok.

Point 111. Trolley stop.

Point 112. Leningradskoye Shosse.

Point 113. Southern entrance to the subway station "Dinamo".

Point 114. Northern entrance to the subway station "Dinamo". 50X1-HUM

Point 115. Stadium "Dinamo".

Point 116. Zhukov Aviation Academy. 3000-3500 Air Force officers attended this academy, for a period of five years. 400-500 Chinese cadets in uniform march near the Academy. several officers in Bulgarian, Hungarian, Czech and Polish uniforms in the vicinity of the Academy. 50X1-HUM Several Spitfires, Aircobras, and Liberator bombers were parked in front of the Zhukov Aviation Academy.

Point 117. Subway station "Aeroport". 50X1-HUM

Instrument Shop No. 9 50X1-HUM

45. Refer to page 34, sketch of the Instrument Shop No. 9. This shop occupied an area about 120 x 35 meters and manufactured screw cutting dies, micrometers, bore diameters, bits, drills, wrenches, nuts and bolts, rulers, and some items which went into the aircraft tool kits, such as pliers, screw drivers, and hammers. In 1946-47 it was designated as Shop No. 9. In 1956 the designation was changed to No. 53, however the machinery remained unchanged Following legend identifies the numerical designations:

Point 1. Entrance.

Point 2. Offices. This area was about 15 meters square and contained offices for the shop manager, bookkeeping, technical and control sections and the timekeeper. A total of about 12-15 people worked in these offices, in one shift only.

Point 3. Repair section for lathes and other stands - area about 20 x 10 meters containing machinists benches, three or four lathes, two milling stands, and two planing machines. These machines were German and USSR make. This section worked two 50X1-HUM shifts and employed about 15 people on each shift.

Point 4. Lathe section. This was an area about 30 x 10 meters, containing 30 lathes of USSR and German make. This section usually worked

in two shifts, and 50-60 people worked on each shift. There were about 30-35 lathe operators, 10 machinists, five assistants, one inspector and one foreman assigned to each shift.

Point 5. Freight elevator, with a platform four meters square.

Point 6. Corridor, about 100 meters long, 10 meters wide.

Point 7. Supply point - three storage rooms, each about 35 x five meters in area dimension. In each store room were two or three men who issued various tools to the shop workers.

Point 8. Corridor, about 120 meters long and five meters wide.

Point 9. Instrument section - area of about 35 meters x five meters containing machinists benches. This shop made and assembled all the tools which went into the aircraft tool kit. This section worked in two shifts, and about 25 people were assigned to each shift. 50X1-HUM

Point 10. Cutting and polishing machines. Area about 35 meters by five meters containing 15 polishing-grinding machines and five or six cutting machines. These machines were USSR and German make. This section worked in two shifts and employed about 25 men on each shift.

Point 11. Welding and cutting machines. Area about five meters by ten meters containing two or three Soviet-make welding machines and one Soviet-make cutting machine. These machines were used by the workers of the various sections of Shop No. 9.

Point 12. Lathe section. An area about 20 meters x 10 meters, containing 15 lathes placed in two rows. One row was composed of German-make lathes, type "Kerzer" or "Kerger", and the other row consisted of Soviet-make lathes. There were five or six machinist benches. This section worked in two shifts, employing about 30 men on each shift, including about 15-20 lathe operators, six or seven machinists, three porters, one inspector-controller, and one foreman on each shift.

Point 13. Lathes and milling machines. An area about 20 meters x 10 meters which contained 10 lathes and 10 milling machines, all of Soviet make. This section worked in two shifts, employing about 40 men on each shift.

Point 14. Machinists benches - an area about 20 meters x 10 meters containing 10-15 machinists and mechanics work benches. This section worked in two shifts, employing about 20 men on each shift.

Point 15. Precision Instrument Section. An area about 20 meters x 10 meters, containing precision instrument stands. This section, which worked two shifts and employed about 50 men on each shift, made bore diameter gauges and micrometers.

Point 16. Entrance.

Point 17. Polishing-grinding section. An area about 35 meters by five meters, containing eight polishing-grinding machines. This section worked in two shifts, employing about 15 men on each shift. a total of 600 people worked in Shop No. 9.

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Shop No. 10 and Repair Shop

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46. Refer to page 35 sketch of Repair Shop and Shop No. 10 (point 22, Plant Layout). The following legend identifies numerical designations:

Figure A. Shop No. 10 area, about 25 meters by 35 meters.

Point 1. Machine Repair Shop. This was an area 15 meters x 10 meters, containing five lathes, three milling machines, four planing machines and two drilling machines.

Point 2. Machinists Section. This was an area about 10 meters square containing about six machinists benches.

Point 3. Assembly Section. This was an area about 15 meters x 10 meters containing 15 assembly cylinders or drums (sic) (Sborochnyy Baraban).

Point 4. Corridor, 10 meters square.

Point 5. Machinists Section, same as point 2 above.

Point 6. Machinists Section, same as point 2 above.

Point 7. Corridor, 10 meters long and five meters wide.

Point 8. Corridor, 25 meters long and two or three meters wide.

Point 9. Lavatories. This was an area about five meters by three meters.

Point 10. Offices. This was an area about 20 meters by three meters, containing offices for bookkeeping, technicians, shop foremen, and manager of Shop No. 10.

47. Figure B. Repair Shop, area about 50 meters x 35 meters.

Point 1. Offices. This was an area about 40 meters by three meters, containing offices for bookkeeping, technicians, foremen, and manager of the Repair Shop.

Point 2. Corridor, about 40 meters by two meters.

Point 3. Repair Shop. This was an area about 40 meters by 30 meters, containing about 20 lathes, 15 milling machines, five

polishing-grinding machines, three to five drilling machines, six planing machines, 15-25 machinist work benches and stands for electricians.

Point 4. Heavy machinery section. This was an area about 35 meters x 10 meters, containing one round planing machine (Karusel'nyy Strogatel'nyy), one large German-make planing machines, type 'Billeter', two or three large boring machines, as well as machinists benches.

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Comment

1. YaGZ is identified as the Yaroslavl State Plant (Yaroslavlskiy Gosudarstvenniy Zavod). YAZ is identified as the Yaroslavl Automobile Plant (Yaroslavlskiy Avtomobilnyy Zavod).

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Attachment

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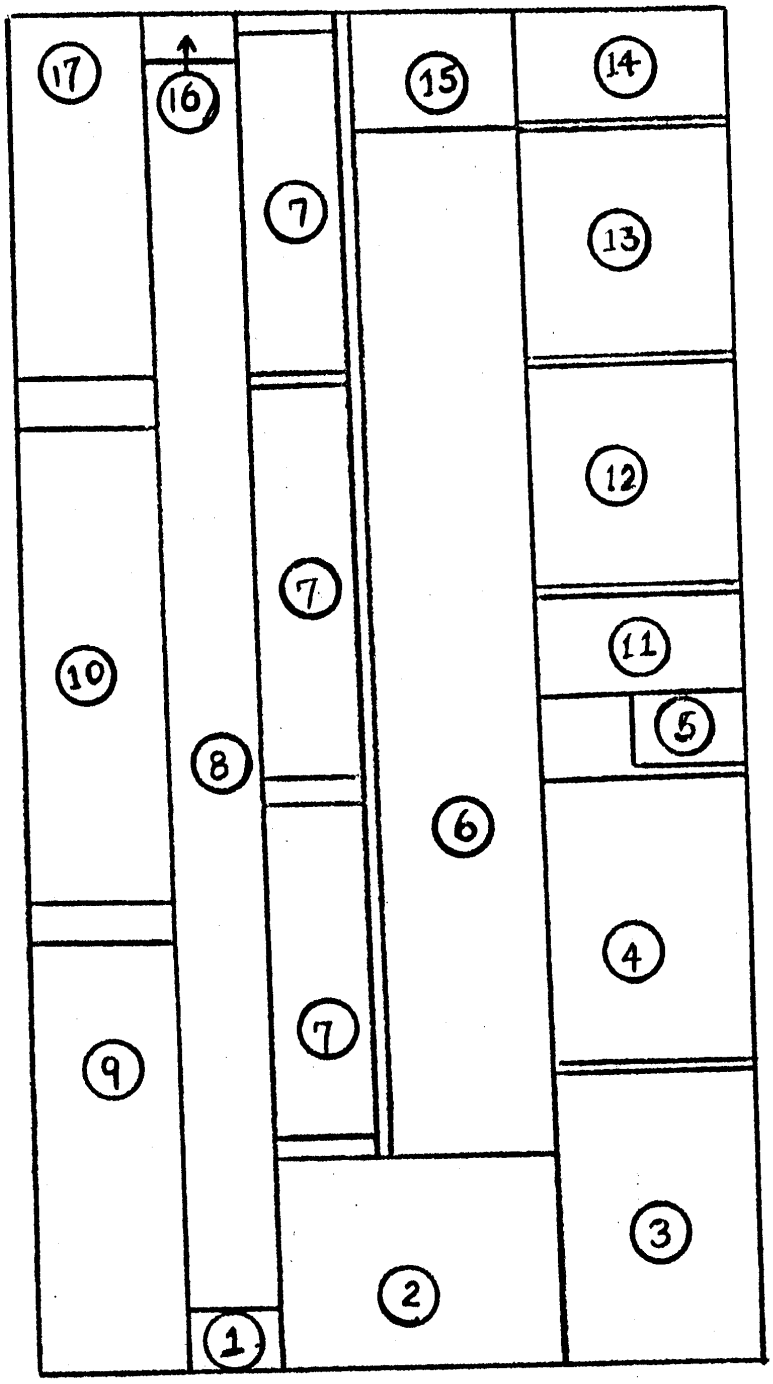
Sketch of Shop No 9 (No.53 - 1956), Instrument Shop, Airframe Assembly Plant No. 30, Moscow



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Attachment

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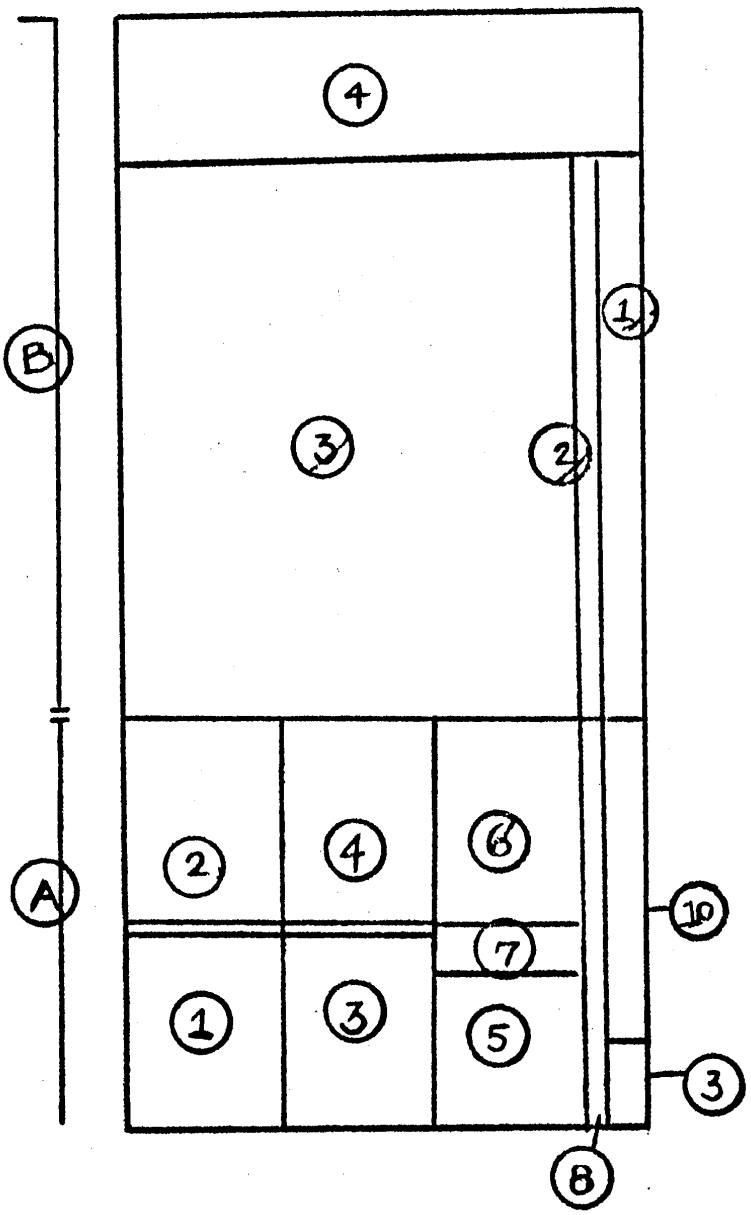
Sketch of Repair Shop and Shop No. 10,
Airframe Assembly Plant No. 30, Moscow



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Attachment

Overlay of Moscow City Plan, Scale 1:35,000

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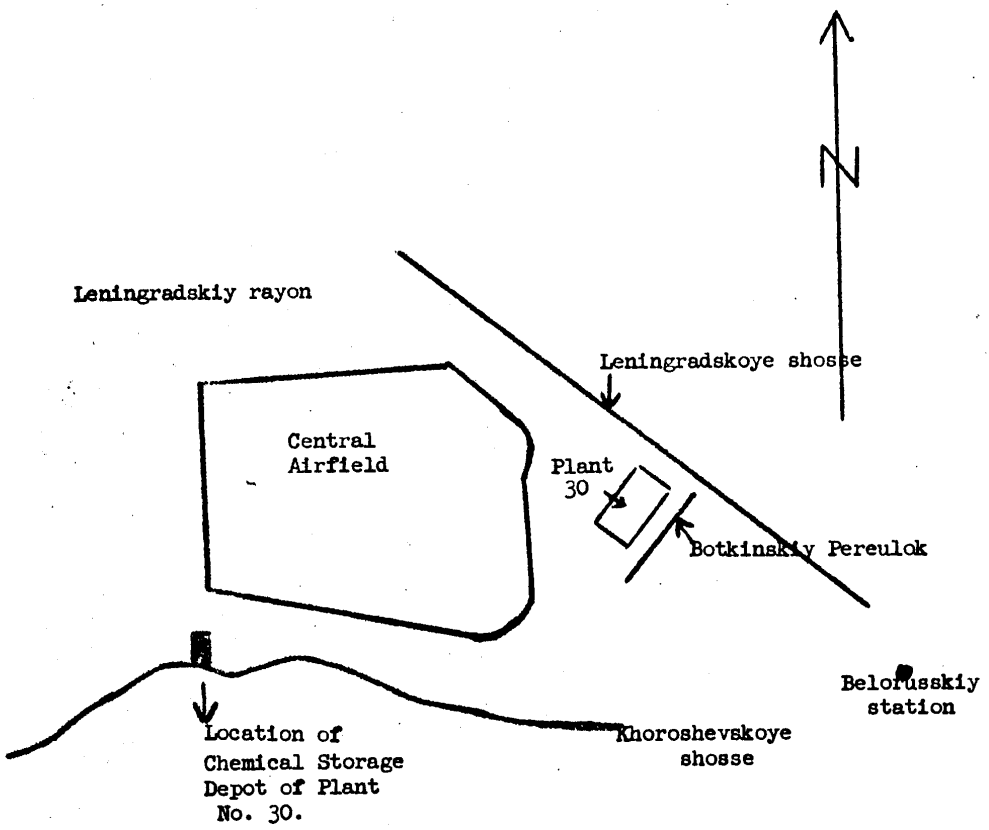
Pinpointing Location of Chemical Storage Depot for Airframe Assembly Plant No. 30, Moscow



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Attachment

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Sketch of Liquid Oxygen Truck
Seen at Airframe Assembly Plant No. 30, Moscow

Chassis - ZIS-5 three-ton truck

Height of Oxygen tank - two meters

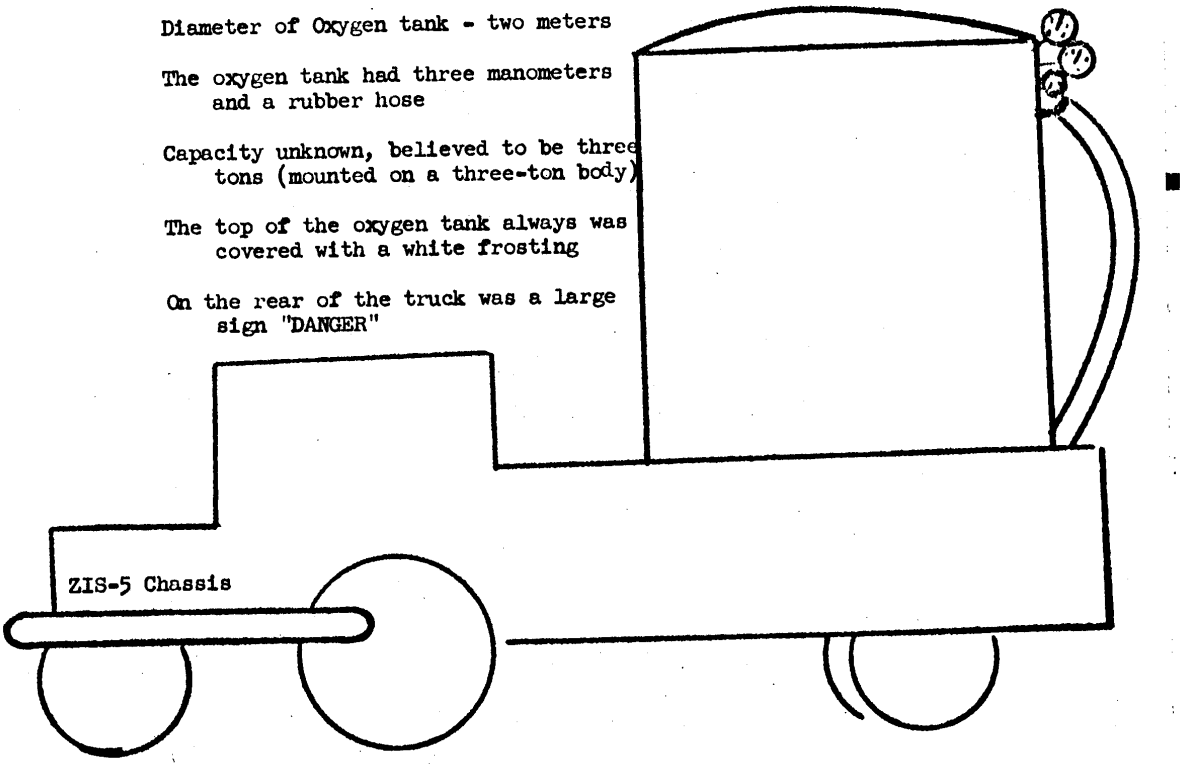
Diameter of Oxygen tank - two meters

The oxygen tank had three manometers and a rubber hose

Capacity unknown, believed to be three tons (mounted on a three-ton body)

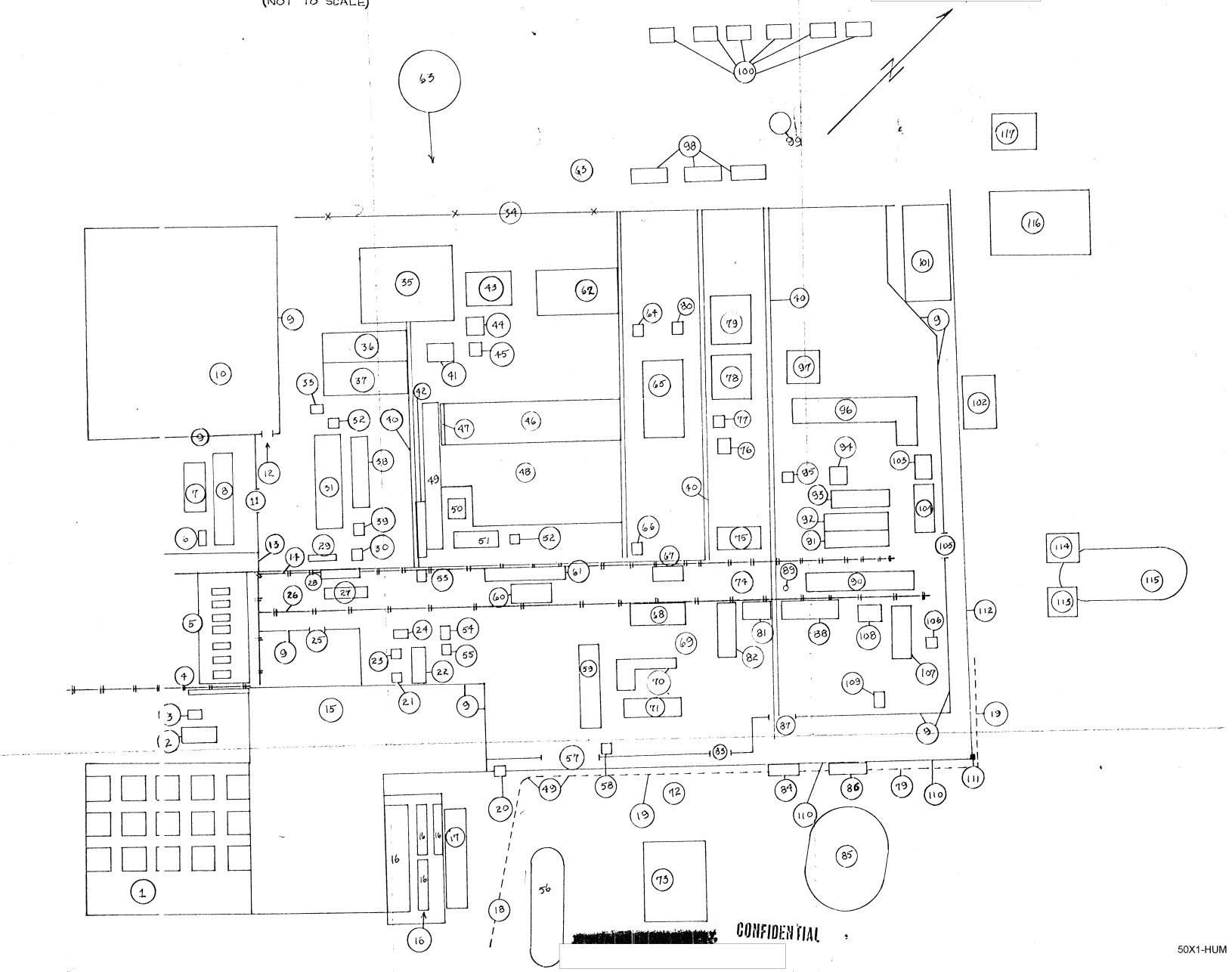
The top of the oxygen tank always was covered with a white frosting

On the rear of the truck was a large sign "DANGER"



INCLOSURE 1 - [redacted] SKETCH OF PLANT 30 LAYOUT [redacted] Attachment

(NOT TO SCALE)



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